

PRINCE GEORGE'S COMMUNITY COLLEGE

INTRODUCTORY PHYSICS II

PHY 1020	Instructor:	Dr. D. Simpson
Section 71900	Office:	310-I Chesapeake Hall
Spring 2021	Office Hours:	Mon 5:30-6:00 pm
Lec. MW 6:00-7:15 pm CHES-305		Wed 5:30-6:00 pm
Rec. M 7:30-8:20 pm CHES-301	Telephone:	(301) 322-0990 ext. 4768
Lab W 7:30-9:20 pm CHES-305	Email:	dsimpson@pgcc.edu

Course Web site: <http://www.pgccphy.net/1020/>

Course information will be posted on this Web site, rather than on Blackboard.

Textbooks:

College Physics: A Strategic Approach, 3rd ed., R. Knight, B. Jones, and S. Field. Pearson Addison-Wesley, 2014.

The Physics 1020 Laboratory Manual will be available on the class Web site.

("Mastering Physics" and similar textbook supplements are entirely optional, and are not required for this course.)

Course Notes:

A set of course notes to supplement the textbook and lectures is available on the "Reference" page of the course Web site, and also on the main page.

Recommended Reference:

The Feynman Lectures on Physics (3 vol.), R.P. Feynman, R.B. Leighton, and M.L. Sands. Addison-Wesley, 1963.

Course Description:

This course covers fundamental concepts of vibration and sound, electricity and magnetism, optics, and modern physics.

Prerequisite: Introductory Physics I (PHY 1010).

### Tentative Schedule

Week	Dates	Topics	Chapters	Lab
1	M 1/18 W 1/20	- No Class (MLK Birthday) -	14, 16	
2	M 1/25 W 1/27	Vibration and Waves	14, 16	1
3	M 2/1 W 2/3	Sound	15	2
4	M 2/8 W 2/10	Electric Charge & Fields	20	3
5	M 2/15 W 2/17	- No Class (Washington's Birthday) - Electric Charge & Fields	20	4
6	M 2/22 W 2/24	Electric Potential	21	5
7	M 3/1 W 3/3	Electric Currents & Resistance	22	6
8	M 3/8 W 3/10	DC Circuits	23	7
9	M 3/15 W 3/17	- Spring Break - - Spring Break -		
10	M 3/22 W 3/24	Magnetism	24	8
11	M 3/29 W 3/31	Electromagnetic Waves & Faraday's Law	25	9
12	M 4/5 W 4/7	Geometrical Optics	18	10
13	M 4/12 W 4/14	Optical Instruments	19	11
14	M 4/19 W 4/21	Physical Optics	17	12

15	M 4/26 W 4/28	Modern Physics	13
16	M 5/3	Final Exam	

Homework:

Weekly problem assignments will be given every Monday during the recitation section and will be due the following Monday AT THE BEGINNING OF CLASS (6:00 pm). The lowest homework score will be dropped in computing your homework grade.

Recitation:

Each week during the recitation section we will go over the solutions to the previous week's homework problems, and you will receive the next week's homework assignment. The recitations will include a discussion of problem-solving tips that you will find useful for the exams. We may occasionally have demonstrations or other activities.

Videos:

In place of watching videos in class, there will be links to the videos on the Videos page of the class Web site. Please watch these on your own time as indicated.

Laboratory:

Because of the COVID-19 coronavirus pandemic, we will be doing labs at home this semester. You will receive a lab kit in the mail, and the lab manual will be posted on the Labs page of the class Web site. Just follow the instructions and carry out the lab activities as described. Return the results to me by email within a week. (This will usually be a photo of your circuit and answering a few questions.) The lowest lab report score will be dropped in computing your laboratory grade.

Exams:

Two midterm exams will be given during the semester. Because of the COVID-19 pandemic, these will be at-home exams. You will have one week to complete the exams. EXAMS WILL BE CLOSED-BOOK AND CLOSED-NOTES. YOU MAY NOT USE YOUR TEXTBOOK, NOTES, THE INTERNET, OR ANY OTHER SUCH EXTERNAL RESOURCES DURING THE EXAM. Submitting exam questions to so-called "homework help" Web sites such as Facebook or Chegg.com is strictly prohibited. Doing so will result in a score of zero for the exam. It will also trigger an automatic Incident Report which will create a permanent record of the infraction with the college, and could lead to further sanctions such as an F\* in the class (indicating failure due to academic dishonesty).

Final Exam:

In addition to these two exams, there will be a comprehensive final exam. It will be an at-home exam like the two midterm exams, and the same exam conditions will apply.

Grading:

Your final grade will be based on your scores on homework, lab work, the two exams, and the final exam, as follows:

Homework	20%
Laboratory reports	15%
2 exams @ 20% each	40%
Final exam	25%

Grading will be determined by a class average. The following scores will be sufficient to earn the following grades:

A	90%
B	80%
C	70%
D	60%

The NA grade may be assigned by the faculty member to any student on the roster who never attends or academically participates in the class during the first three weeks of class (or equivalent of 20 percent in short courses).

The FX grade may be assigned by the faculty member to any student on the roster who did not officially withdraw from the course but who failed to participate in course activities through the end of the

period. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible.

#### Chegg.com and Other "Homework Help" Sites

Use of Chegg.com and other "homework help" sites is strictly prohibited for this course, and is considered cheating. Homework solutions copied from such sites will receive zero credit. Exam problems posted to and/or copied from such sites will result in a zero on the exam, as well as an Incident Report being filed with the college, as described above.

#### Wikipedia:

Don't rely on Wikipedia for information on any subject, including physics. Wikipedia is full of errors, and is a very poor source of information. Instead, when searching the Internet, look for materials from US Government Web sites (e.g. nasa.gov) or from university Web sites (ending in .edu). For example, Georgia State University's "Hyperphysics" site at <http://hyperphysics.phy-astr.gsu.edu> is a good source of physics information.

#### Classroom Policies:

Academic honesty and integrity will be expected of you at all times -- for this course or any other. I will deal with infractions quite severely. You may work together on homework and laboratory reports, but don't just copy someone else's work. Exam work MUST be your own work; copying from another student's exam is cheating, and may result in your expulsion from the college.

Under unusual circumstances and at the discretion of the instructor, assignments may occasionally be submitted by e-mail. Any assignments submitted by e-mail MUST be in PDF format. Check with your instructor before submitting any assignments by e-mail.

Photocopied assignments will not be accepted.

#### Delayed College Openings:

When the college announces a delayed opening, all classes with at least 45 minutes of class time remaining at the time of the opening will be held. For example, in the event of a 10 a.m. opening, a 9:30-10:45 a.m. class will be held. This procedure applies to all credit classes. To sign up for text alerts such as school closings and delays, go to [www.pgcc.edu](http://www.pgcc.edu), click Services & Support, and then click the Owl Alert icon. Owl Alert is the colleges instant messaging and email notification system.

#### Disability Support Services:

Students requesting academic accommodations are required to contact the Disability Support Services Office (B-124) or call (301) 546-0838 (voice) or (301) 546-0122 (TTY) to establish eligibility for services and accommodations. Students with documented disabilities should discuss the matter privately with their instructors at the beginning of the semester and provide a copy of their Student/Faculty Accommodation Form.

#### Civility Statement:

To promote a community of scholarship and civility, everyone at Prince George's Community College is expected to be respectful, tolerant and courteous towards others at all times, adhere to college policies and procedures, and respect college property. Creating a culture of civility both inside and outside the classroom is everyones responsibility.

Civility is a college-wide commitment and in order to identify PGCC students, students are required to enter classrooms with their college IDs visible. ALL students must have their IDs visible while AT ANY COLLEGE SITE, WHETHER THEY ARE ON THE LARGO CAMPUS OR ANY EXTENSION SITE.

#### Code of Conduct:

The Prince George's Community College Code of Conduct defines the rights and responsibilities of students and establishes a system of procedures for dealing with students charged with violations of the code and other rules and regulations of the college. A student enrolling in the college assumes an obligation to conduct himself/herself in a manner compatible with the college's function as an educational institution. Refer to the 2018-2019 Student Handbook for a complete explanation of the Code of Conduct, including the Code of Academic Integrity and the procedure for dealing with disruptive student behavior.

Code of Academic Integrity:

The college is an institution of higher learning that holds academic integrity as its highest principle. In the pursuit of knowledge, the college community expects that all students, faculty, and staff will share responsibility for adhering to the values of honesty and unquestionable integrity. To support a community committed to academic achievement and scholarship, the Code of Academic Integrity advances the principle of honest representation in the work that is produced by students seeking to engage fully in the learning process. The complete text of the Code of Academic Integrity is in the 2018-2019 Student Handbook and posted on the college's website.



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